EPI Newsletter

Current events in epidemiology in Ada, Boise, Elmore and Valley Counties

A bulletin on Epidemiology and Infectious Disease Control in District 4.

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Measles: First Case in a Decade

On January 26, 2001, a Boise-area physician reported a suspected case of measles (rubeola) in a 35 year-old male to the Office of Epidemiology & Surveillance at Central District Health Department (CDHD). The physician's report was based on a clinical examination and positive rubeola IgM results from an out-of-state laboratory. Subsequent testing by the Idaho State Bureau of Laboratories confirmed that the individual did have measles. He had recently returned from a visit to the Republic of South Korea which was in the midst of a serious measles epidemic. He had declined a MMR as part of his international travel immunizations. It was the first confirmed rubeola case reported in the district in 10 years.

CDHD responded with a vigorous investigation of the case's work, travel, and social activities during his contagious period. A multi-disciplinary team consisting of health department staff from epidemiology, immunizations, administration, and representatives of the Idaho State epidemiology, immunization and laboratory programs conferred to implement strategies for containing any possible outbreak. During the ensuing four weeks, over 150 hours of professional staff time were devoted to the case. The time was spent investigating, notifying potentially exposed individuals, and evaluating rash illnesses in children and adults who contacted the health department because they thought they might have measles.

Initially, six "sites of concern" were targeted for immediate attention based on the risk of exposure. They were:

- the case's immediate family and other close household contacts,
- his co-workers,
- his church congregation,
- a popular restaurant in Boise County that he visited during his contagious period,
- **his physician's office** (staff and patients in the waiting room),
- and a **hospital laboratory waiting room**.

Potentially, several hundred people were exposed to the case during his infectious period. Field visits, faxes, and phone calls were the primary tools for alerting concerned parties. Those initial communications were followed by public health news releases and physician alerts.

State-supplied measles vaccine was made available to the health department and free immunizations were offered to all potentially exposed contacts who might be susceptible. This included individuals who were not sure of their immunization status or did not have knowledge or proof of a lab-confirmed case of measles.

Between February 1 and March 12, 2001, twelve individuals were evaluated for rash illnesses either by the health department or other medical staff. They ranged in age from 6 weeks to 76 years of age. Blood was drawn on

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some, but not all of the "suspect" cases. Some of the cases were suspect because they had weakly positive "capture IgM" test results. When follow-up testing was done at the state laboratory using an ELISA IgM kit, those cases were shown to actually be negative for rubeola IgM. The "weakly positive" results using the capture test were most likely due to the test's *over* sensitivity. Eventually, all those individuals tested for rubeola IgM using the ELISA IgM kit were negative.

Measles is a highly contagious disease and we are pleased to report that by the end of March no other confirmed cases were identified. Adults traveling to foreign countries where measles is endemic should review their immunization history prior to departure. An MMR is recommended if they have not had a physician or lab-confirmed case of measles, or if there is any doubt about whether or not they have been immunized against measles. Children should be appropriately immunized at all times.

SNAP: A New Health Initiative at CDHD

The Safety Net for AIDS Program (SNAP) is a new health initiative sponsored by Central District Health Department (CDHD) for responding to the unmet needs of individuals and families affected by HIV/AIDS. With the assistance of a community advisory board and in collaboration with other HIV/AIDS care and service organizations, SNAP is designed to assist persons living with HIV/AIDS who are in critical need of care services but are ineligible for established HIV programs or are without any other resources to cover their unmet needs.

The CDHD Board of Health approved the establishment of SNAP in late November and allocated limited start-up funds to cover a part-time nurse/manager position and funds for providing initial client services . The 8th annual "Valentine for AIDS" art auction sponsored by the Flying M Coffeehouse in February, netted $15,000 in contributions to the new program. Since it began serving clients in January 2001, SNAP has expended over $8,000 to cover client bills for utilities (gas or electricity), rent, telephone (basic service only), medical and optical care, insurance co-pays, and other expenses.

To be eligible for SNAP a person must be living with HIV/AIDS, be a permanent resident in Health Districts III or IV, and need assistance to cover living costs or the cost of care services not covered by other HIV/AIDS programs. Those programs could include Ryan White CARE Act Title II and Title III programs, and the AIDS Drug Assistance Program through the state of Idaho. Requests for SNAP assistance are submitted for consideration to the 5-member community advisory board. All requests are confidential. Since funding is limited, the advisory board gives careful consideration to each request. Sadly, not every petition for assistance can be approved.

Central District Health Department is a tax-exempt, governmental agency. Therefore, any contributions to SNAP or other CDHD programs such as the Jim Moore Emergency Medical Assistance Fund are tax deductible. For additional information about SNAP, contact Wendy Den-Herder, R.N. in the Office of Epidemiology and Surveillance at 327-8599.

Suspected Cryptosporidiosis Outbreak *August-September 2000*

Cryptosporidiosis is a diarrheal illness which occurs worldwide. It is caused by the coccidian protozoan parasite, *Cryptosporidium parvum*. Infants and toddlers, animal handlers, international travelers, men who have sex with other men, and close personal contacts of infected individuals are at higher risk of infection. Immune-compromised individuals may be unable to clear the parasite which may result in much more serious morbidity and higher mortality than otherwise found in healthy people. Outbreaks have been associated with the following:

- child care centers,
- drinking water,
- recreational water use (including water slides, swimming pools, and lakes).

Symptoms of Cryptosporidiosis include profuse watery diarrhea often accompanied by cramping abdominal pain. Children may experience loss of appetite and vomiting prior to the onset of diarrhea. Symptoms may come and go for up to 30 days in normally healthy individuals. The oocysts continue to be excreted in the stool for several weeks after symptoms resolve. Outside the body, they may remain infective for 2-6 months in a moist environment. No treatment has proven to be effective.

Transmission of the *Cryptosporidium* parasite occurs primarily via the fecal/oral route. Infection can spread from person to person, animal to person, through the consumption of contaminated food or, exposure to drinking or recreational water sources contaminated by the parasite. The probable incubation period is from 1 to 12 days with an average of 7 days.

INCIDENT CASES IN DISTRICT 4

Year [1]	Number of Cases
1995	3
1996	6
1997	2
1998	3
1999	2
5 Year Average 1995 - 99	3.2 Cases / Year
2000	16

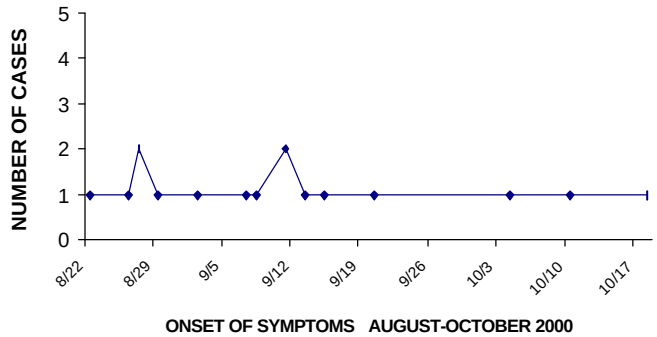
[1] *Cryptosporidium parvum* infection became reportable in Idaho on May 1, 2000. The number of incident cases in years prior to 2000 could have been affected by under reporting.

In September 2000, CDHD epidemiology staff began to receive reports of lab confirmed cases of Cryptosporidiosis. Since it was summertime and Cryptosporidiosis was a newly reportable disease, staff had expected that recreational water use would be the source of some cases in the area. Reported cases exceeded expectations. Possible exposure at an Ada county water park was mentioned by several cases during interviews.

Case patients or their parents were interviewed by phone. Information was also gathered from several physicians who were caring for patients. Environmental samples were not collected because the water park was closing for the season and many sections of the park had already been drained.

All but three of the cases had stool specimens ordered by their physicians. Those three cases were all household contacts of lab confirmed cases. It was determined that stool tests were not necessary because the three cases fit the CDC's case definition for probable infection. Of the sixteen cases reported in 2000, the first case's onset of symptoms occurred on August 22 and the last case's onset of symptoms occurred on October 10. Since two cases were not available to be interviewed, their dates of onset are unknown. These cases are listed on the graph according to their test dates (9/11 and 10/18). *See Figure 1.*

Figure 1. **CRYPTOSPORIDIOSIS DISTRICT 4**



Twelve (75%) of the cases were female and 4 (25%) were male. The ages ranged from 3 years to 52 years. The mean age was 22.7 years. All cases were Ada County residents. Eight of the cases had exposures at an Ada County water park. Half of the cases for the year shared a common exposure at the water park. However, there were no lab specimens absolutely linking the cases with the water park. Five of the cases (two adults and three children) were a "family and friends" cluster epidemiologically-linked to the water park. Two adults and three children were epidemiologically-linked to the same child care center.

DIAGNOSTIC TESTING FOR *C. parvum*

"...routine laboratory examination of stool for ova and parasites is inadequate to detect *C. parvum*, so health care professionals should ask laboratory personnel to test specifically for *C. parvum*." American Academy of Pediatrics, 2000 Red Book, 25th Edition, p. 224.

Following discussions with the water park management, CDHD environmental staff has agreed to test the water at the beginning of the 2001 season. Health care providers including urgent care and emergency room physicians are encouraged to include Cryptosporidiosis in their differential diagnosis, especially during the summer months when recreational water use is at its peak.

EPI Newsletter

PLEASE CIRCULATE TO ALL MEDICAL STAFF

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Selected Reportable Diseases - District 4

Disease	1st Quarter 2001(Jan - Mar)	3 Yr. Average 1998-2000 (Jan - Mar)
Campylobacteriosis	10	5.8
Chlamydia(x10)	20.3	12.7
Cryptosporidiosis	0	1
E. coli 0157:H7	0	0
Giardiasis	9	10.3
Gonorrhea	7	4
Hepatitis A	2	2.5
Hepatitis B (Acute)	2	2
Hepatitis B (Chronic	5	5
Hepatitis C (x10)	7.9	6.83
HIV	4	2.7
Measles	1	0
Meningitis*	3	2
Pertussis	8	3.8
Salmonellosis	4	8.5
Shigellosis	0	4.3
Tuberculosis	1	1

*Includes Bacterial & Viral

Questions? Comments?
If you have a question about epidemiology or an infectious disease, contact the Epidemiology and Surveillance Program, at 327-8625, or fax: 327-8554